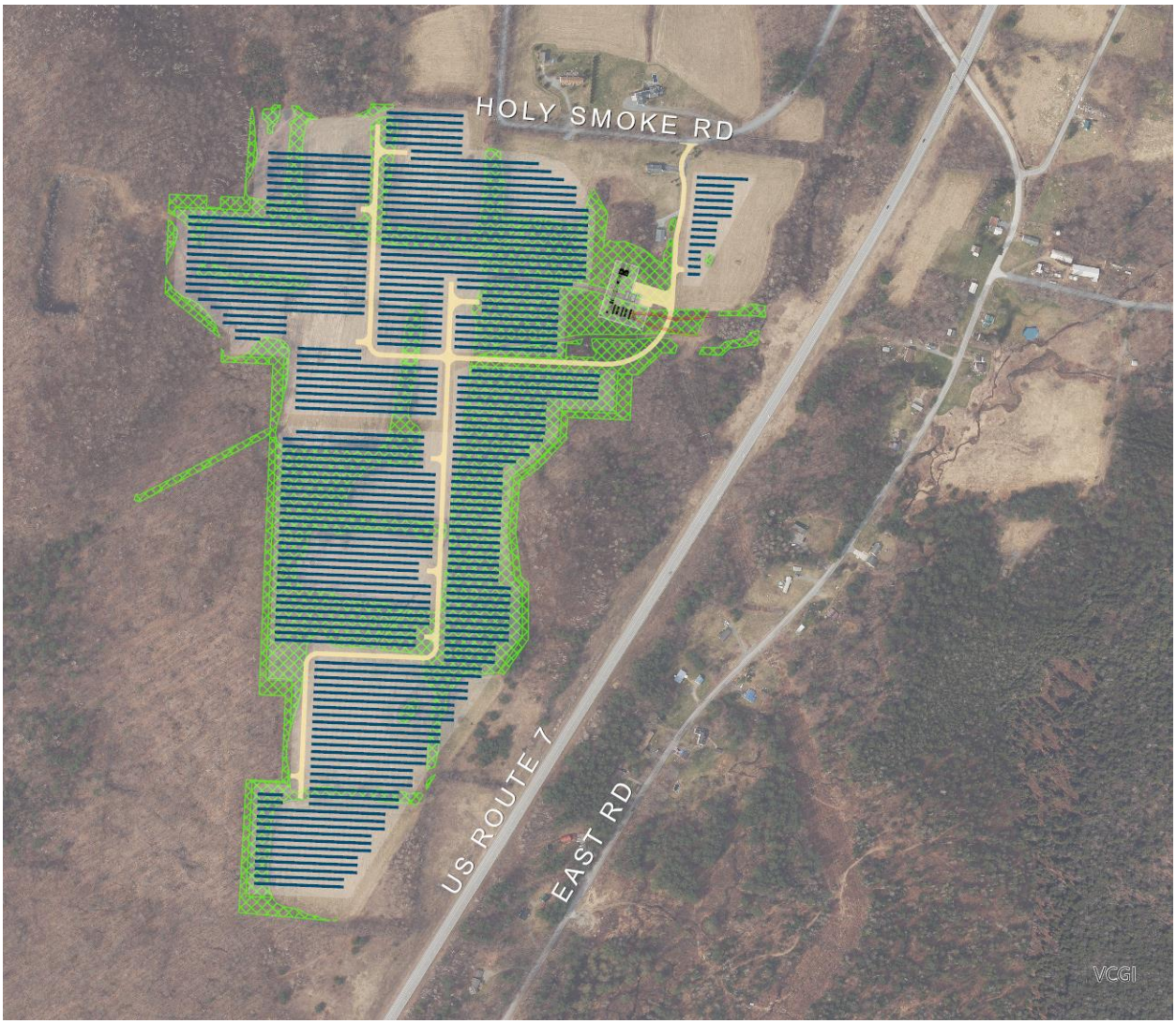
VT Real Estate Holding 1 LLC

# Shaftsbury Solar Project

## Shaftsbury, Vermont




## Aesthetic & Orderly Development Analysis Report

March 1, 2024

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LANDSCAPE ARCHITECTURE & PLANNING

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# I. Project Description

T.J. Boyle Associates, LLC, and landscape architecture and planning firm, which specializes in aesthetic and visual impact analysis was retained by the Vermont Department of Public Service to perform a review of potential impacts to the aesthetics and orderly development of the area as a result of the proposed VT Real Estate Holding 1, Shaftsbury Solar Project (or the "Petitioner"), Case No. 23-1447-PET.

The Shaftsbury Solar Project (or the "Project") is a proposed 20-megawatt (MW) alternating current (AC) photovoltaic electric generation facility within the town of Shaftsbury, Vermont. Based on the revised site plan as introduced through the supplemental prefiled testimony of Reed Willis, dated January 19, 2024, the total fenced portion of the Project array area would occupy approximately 79.4 acres across four parcels of land that total 182 (+/-) acres. A Project substation would include a fenced yard of 0.8 acres. The array would consist of approximately 103 east-west rows of bifacial photovoltaic modules mounted on fixed-tilt racking oriented to the south. Panels will be roughly a maximum height of 14 feet on the high side.

Electricity would run from the panels in direct current (DC) to eight (8) equipment pads dispersed among the array, each with an inverter and generator step-up transformer. Underground collection lines would then connect the equipment pads to a Project substation where power will be stepped up from 34 kV to 46 kV with a main power transformer. The Project substation will also contain a control room, lightning protection, and breakers. Electric lines would transition to an overhead configuration within the Project substation, and then connect to a new Green Mountain Power ("GMP") substation. The GMP substation would contain a three-breaker ring bus, a control house, lightning protection, and revenue meter. From the GMP substation, the Project would interconnect to an existing GMP 46 kV transmission line that is located on the northeastern portion of the site via four new single-pole structures. Two three-pole transmission structures are proposed to interconnect with the existing GMP line.

The Project would be accessed at an existing drive entrance along Holy Smoke Road, roughly one-quarter mile west of East Road. The existing roughly 13-foot-wide drive would be widened to 16 feet. During construction, to allow for deliveries of construction equipment, materials, and supplies, a temporary access road will be constructed directly from US Route 7, which runs adjacent to the Project parcels to the east. Within the array area a series of new drives would be constructed to provide access to the equipment pads and rows of panels and appear to all be 16-feet wide. The array area would be enclosed by a fixed-knot, agricultural style fence and would be a minimum of seven (7) feet tall. It is assumed that the substation yards would be enclosed with chain link fence, with a minimum height of seven (7) feet. Per the revised site plan, the Project will disturb approximately 104.2 acres and would require roughly 38.5 acres of tree clearing (cut and grubbed), and 3.7 acres of tree cutting (no grubbing). Figure 1 illustrates the propose Project layout, including proposed arrays, fences, substations, tree clearing, and viewpoint photograph locations.

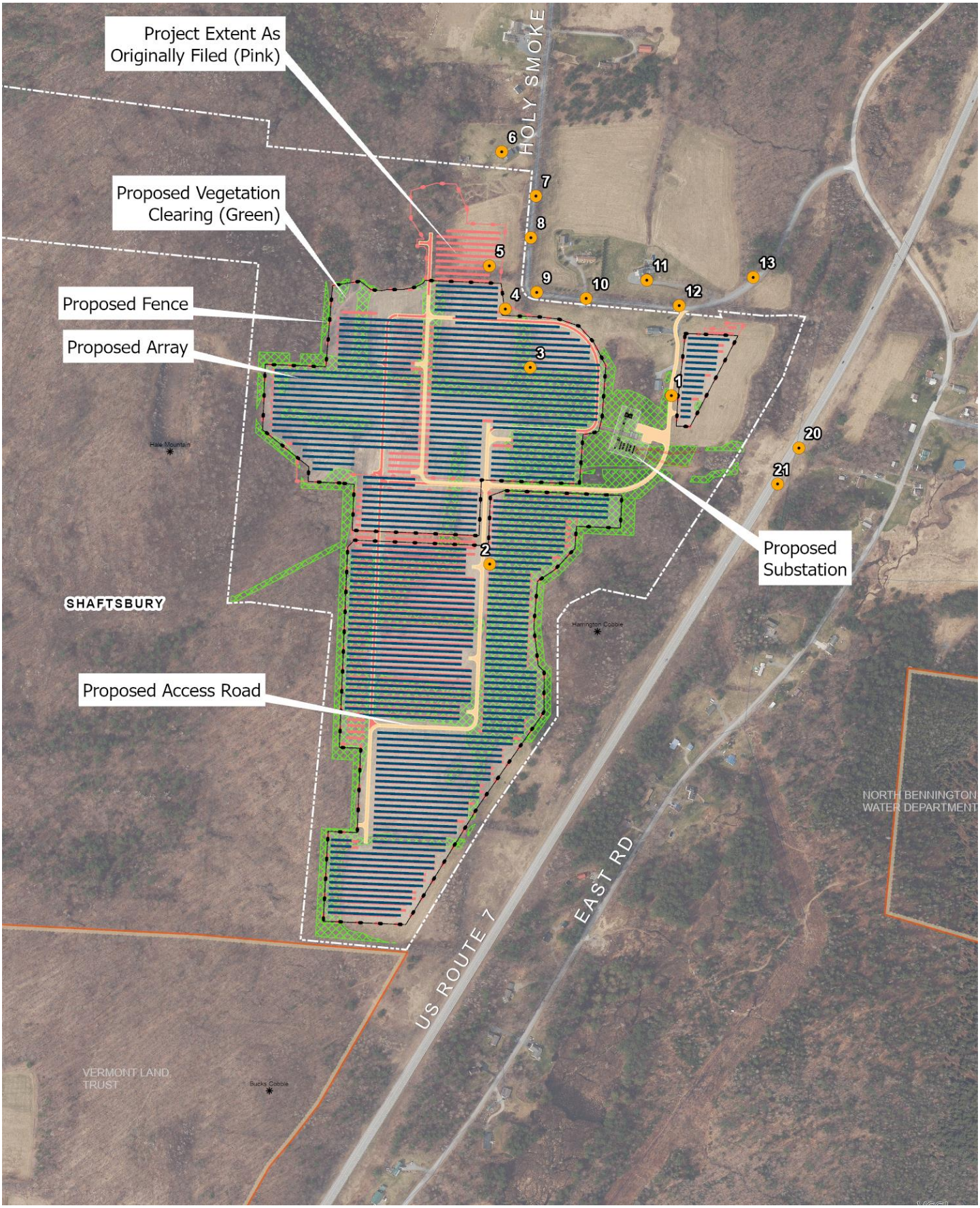


**Figure 1:** Proposed Project Layout

# II. Aesthetic Analysis

## A. Methodology – Quechee Test

Section 248(b)(5) of Title 30, Vermont Statutes Annotated requires the Commission to make a finding that a proposed electrical generation Project would not have an undue adverse effect on aesthetics, as outlined in the so-called "Quechee Lakes Decision."[1] As explained in the Commission's order in Docket No. 6860, the Commission applies the Quechee Test in Section 248 proceedings, as follows:

> The [Commission] has adopted the Environmental Board's Quechee analysis for guidance in assessing the aesthetic impacts of proposed projects under Section 248. We have previously explained the components of the Quechee analysis as follows:
>
> > In order to reach a determination as to whether the project would have an undue adverse effect on the aesthetics of the area, the [Commission] employs the two-part test first outlined by the Vermont Environmental Board in Quechee, and further defined in numerous other decisions.
> >
> > Pursuant to this procedure, first a determination must be made as to whether a project would have an adverse impact on aesthetics and the scenic and natural beauty. In order to find that it would have an adverse impact, a project must be out of character with its surroundings. Specific factors used in making this evaluation include the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space.
> >
> > The next step in the two-part test, once a conclusion as to the adverse effect of the project has been reached, is to determine whether the adverse effect of the project is "undue." The adverse effect is considered undue when a positive finding is reached regarding any one of the following factors:
> >
> > 1. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?
> >
> > 2. Have the applicants failed to take generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings?
> >
> > 3. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?
>
> Our analysis, however, does not end with the results of the Quechee test. Instead, our assessment of whether a particular project would have an "undue" adverse effect on aesthetics and scenic or natural beauty is "significantly informed by overall societal benefits of the project." (In re Petition of Tom Halnon, CPG NM-25, Order of 3/15/01 at 10-11)

[1] Quechee Lakes Corporation, Applications #3W0411-EB and #3W0439-EB at pgs. 18-20

Petitions of Vermont Electric Power Company, Inc. (VELCO), Vermont Transco, Docket No. 6860, Vt. Pub. Serv. Bd. (Jan. 28, 2005) at 79-80.

T.J. Boyle Associates interprets the first prong of the Quechee Test to initially require an assessment of a project's visibility. Although the Quechee Test lists visibility of a project as a "specific factor" for evaluation, visibility establishes the underlying method for which all visual aesthetics are evaluated. For instance, a project's design, materials and colors may be completely out of character with its surroundings, but if such project is not visible to the general public (or "average person"), then there would be no adverse visual effect. Likewise, when a project is determined to be out of character with its surroundings, one solution is to visually obscure the project with landscape mitigation or other screening, which itself is a simple reduction or occlusion of visibility. In this way, T.J. Boyle Associates interprets the first prong of the Quechee Test to be asking, "What is the project's visibility, and is that visibility out of character with its surroundings?" In our experience, if the Quechee Test were not interpreted in this way then a given project could be considered adverse even if it was completely invisible to surrounding areas, which would be an unreasonable interpretation and inconsistent with the purpose of the test.

Our study area for visibility of solar generation facilities tends to extend approximately two miles from a project location. This distance tells us whether a given project is, or is not, visible from prominent or protected locations in the study area, or, perhaps more importantly, if a project itself is in a prominent or highly visible location. We may find that a project has an adverse effect on a particular viewpoint, but that the project does not have an adverse impact on the surrounding area as a whole.

In conducting the Quechee Analysis and preparing this report, four distinct methods have been used: (1) background data collection, (2) GIS viewshed analysis mapping, (3) field investigation, and (4) Project visualization. The GIS viewshed mapping and field investigation are used to identify areas with potential visibility of the Project. The background data and field investigation are used to characterize the study area. For the Project visualization, a simulation is prepared to accurately visualize the Project. All four methods are used to evaluate whether there are in fact 'adverse' impacts and if so, whether those impacts could be considered 'undue.'

**(1)** **Background Data Collection.** Standard data that can help describe the landscape of the Project site, the surrounding area, and the Project are assembled. These data include available Project plans and details, aerial photography, topographical maps, Geographical Information System ("GIS") data including digital elevation model data, water and land cover information, transportation data and primary building data (public, commercial, residential), and applicable regulations such as the town plan and the regional plan.

**(2)** **GIS Viewshed Analysis.** Following the background data collection, ESRI ArcGIS software is used to calculate a GIS viewshed or visibility analysis of potential visibility of the Project. Viewshed analysis can identify areas that have potential views of a project, and when mapped it shows the Project viewshed. The analysis applies a line-of-sight method from a prescribed point or points representing the Project (such as the top of an upright solar array, substation equipment, or power line structure), to all other locations within a designated study area. Figure 2 illustrates how line-of-sight is determined visibility. The analysis results (portrayed as two viewshed maps), and background data review form the basis for organizing the field investigation.

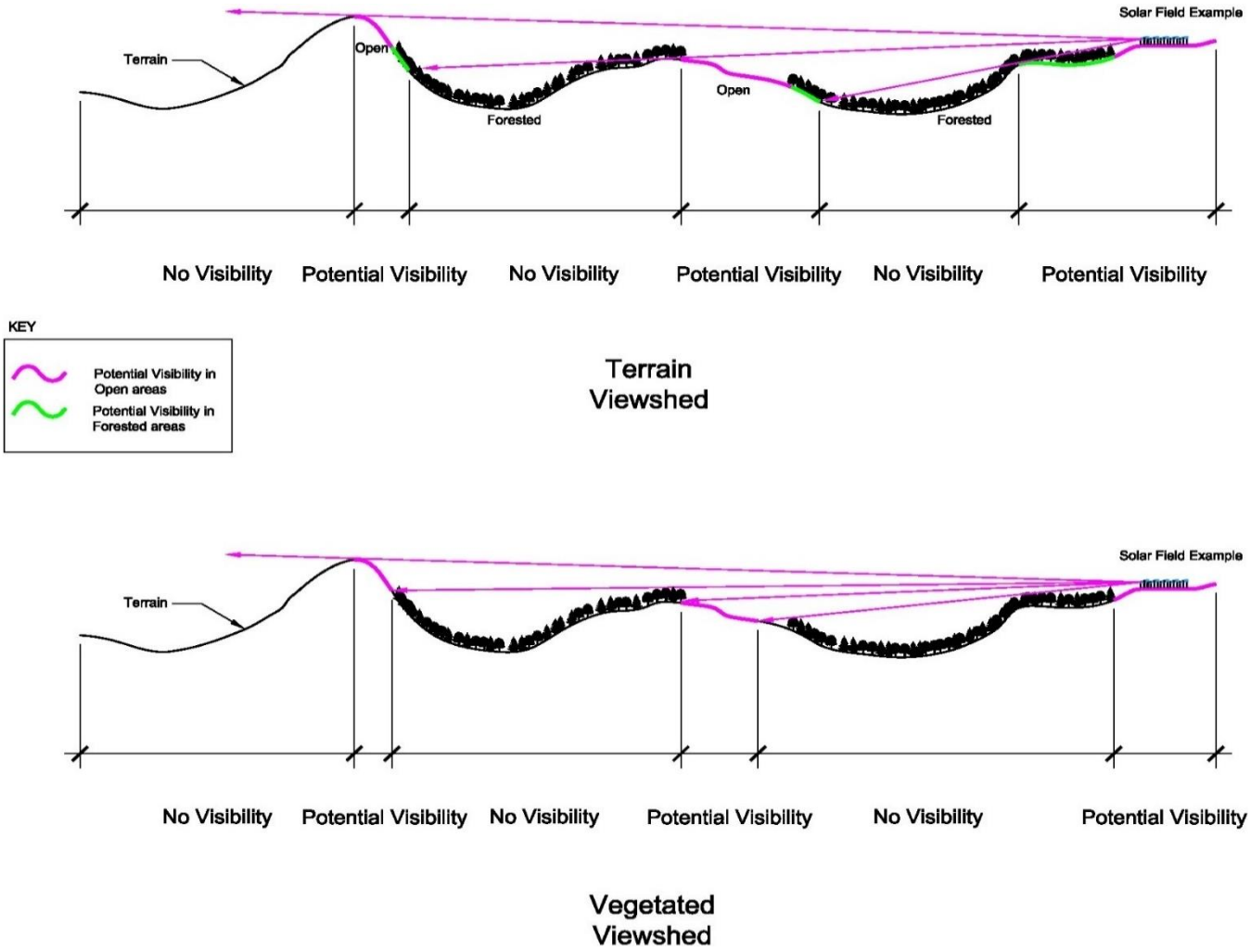


**Figure 2:** Terrain Viewshed and Vegetated Viewshed Diagrams. (Please note this diagram is for illustrative purposes only to portray the results of a GIS Viewshed analysis and is not representative of the proposed Project.)

**a.** A "Terrain Viewshed" map (see Appendix A, Maps 2A and 2B) represents how landform may block views of Project upgrades. This analysis only accounts for intervening landform and does not incorporate how vegetation, buildings, hedgerows, street trees or any other vegetation or buildings would screen visibility of the Project. However, to facilitate interpretation of the results, the map differentiates between areas with and without forest cover, since there would be no distant views if one is standing in the forest. This map represents the maximum area from which the Project could be visible, and in almost every case overstates the probable visibility.

**b.** A "Vegetated Viewshed" Map (see Appendix A, Maps 3A and 3B) represents a "Vegetated Viewshed." This map shows how vegetation, buildings and other obstructions in the landscape may act in addition to landform, to block views of the Project. The data used to identify obstructions is derived from LiDAR data, the national elevation dataset, and the national land cover database. This map is a more realistic representation of the area from which the Project is potentially visible.

When properly taken into consideration, these maps indicate areas most likely to have views, emphasizing areas vulnerable to the greatest impacts. The viewshed maps also identify areas that are unlikely to have views. The assumptions used to calculate these maps are conservative and tend to over-estimate Project visibility. Rather than serving as a final result, these maps are primarily used in preparation of the field investigation, which more fully evaluates the landscape context, views, and potential impacts based on the visibility indicated on the maps. Therefore, it is inappropriate to use these maps as the only basis to evaluate visual extent and impacts. Figure 2 illustrates the difference between the Terrain Viewshed and the Vegetated Viewshed maps.

**(3)** **Field Investigation**. The viewshed maps are used to focus the field investigation on areas most likely to have views of the Project. The purpose of the field investigation is to:

a. Verify potential visibility as indicated on the viewshed maps

b. Photograph views toward the Project from these and any other sensitive areas (parks, public facilities, etc.)

c. Photographically document the landscape's visual character within the study area

d. Record notes concerning each viewpoint where photographs are taken

e. Identify location of photograph viewpoints using a global positioning system ("GPS") unit

On completion of the field investigation, the GPS data is transferred to a GIS database and synchronization of the data and photograph locations are verified. Photo locations and the actual photos are coordinated through indexed viewpoint numbers. Documentation of the field investigation is then prepared, which includes: (1) mapping of the routes traveled and locations of photograph viewpoints, displayed on mapping within Appendix A, and (2) a catalog of photography included as Appendix B - Photographic Inventory. Appendix B includes a series of panoramic views to provide context of the surrounding conditions, and single-frame photographs to represent views towards the Project site. Unless otherwise noted, single-frame photos utilize a focal length equivalent to 50mm , which is considered a 'normal lens'. A normal lens reproduces a field of view that generally looks "natural" to a human observer. Panoramic views result in significant spatial distortion but are beneficial by providing a very wide field of view to illustrate the existing surroundings.

**(4)** **Project Visualization.** It is normally helpful to create visualizations as an aid to evaluate visual impacts. In many situations, GIS information prepared with the viewshed analysis can also be used to create a three-dimensional (3D) model. The model can help to better understand the visual relationship of the basic landscape features to the Project elements. The advantage of this approach is the ease in representing the view from any viewpoint; the disadvantage is the relative coarseness of the data and the schematic quality of the image.

Photos captured during field investigation can also be used to create realistic photographic quality simulations of a Project. The specific selection of a simulation viewpoint is based on the extent of the Project's visibility, the probable frequency and sensitivity of viewers, and the availability of a suitable photograph from the field investigation. There may be more than one viewpoint for a particular Project component. However, each simulation attempts to illustrate the most visible condition for the area it represents. The following process is used to create the simulation.

f. Three-dimensional computer-aided design ("CAD") drawings of the proposed Project elements and site plan are obtained or created.

g. The CAD data is georeferenced to aerial photographs of the area, and reference markers representing fixed landscape elements visible in the photograph are added (i.e. existing buildings, utility poles, etc...)

h. A viewpoint or camera view including optical characteristics of the lens used to take the photograph is created within the CAD drawing and a perspective image of the proposed Project is produced that matches the photograph.

i. The perspective image is introduced as an independent layer into the digital image file of the simulation photograph. The reference markers are used to evaluate the accuracy of the perspective settings. The settings of the perspective drawing are fine-tuned to ensure the reference markers coincide with the photograph.

j. Elements of the perspective drawing that would be visible are rendered into the photograph using texture and colors that occur on the site or are specified in the Project documents or from other similar projects.

Photographic simulations prepared for analysis of the Project are included as Appendix C.

TJB evaluates data from the steps above and compares existing conditions with plans for the proposed Project. The following sections of this report describe in detail the collection and evaluation of data and the resulting conclusions.

## B. Quechee Test Part I – Evaluation of Adversity

### 1. Overview

The Project is proposed south of Holy Smoke Road, largely within a series of existing agricultural fields that are separated by a combination of hedgerows and small stands of mature woods. This portion of Shaftsbury is located within the Valley of Vermont physiographic region, which is adjacent to the western flanks of the Green Mountains to the west. This area is characterized by gently rolling hills, forested areas mixed with open agricultural fields.

To the east and south of the Project site, US Route 7 parallels the Project property in a slightly northeast-southwest orientation, but is separated from large portions of the Project area by a small hill and mature woods. East Road roughly parallels Route 7 further to the east, then crosses beneath US Route 7 northeast of the Project, and then runs parallel west of Route 7. East road provides access to rural and low-density residential properties and some commercial uses. The area east of Route 7 and East Road is largely wooded, particularly as elevations rise and the landscape transitions to the Green Mountains. The Project significantly narrows to the south, where US Route 7 crosses to the south of the Project as it continues to the southwest. To the north of the Project site, the landscape slopes mostly downhill to Holy Smoke Road, which connects Trumbull Hill Road to the northwest with East Road to the northeast. Holy Smoke Road provides access to several residential uses, and is typically lined with mature roadside vegetation or forest. West of the Project site, an existing forested hillside slopes up to an old quarry. To the southwest, the landform slopes downward, where a forested hillside provides a dense buffer between the proposed array and agricultural fields that begin roughly 1,500 feet to the west and southwest.

As noted above, GIS viewshed mapping was utilized as a preliminary evaluation method to assess the extent of potential Project visibility. Field investigation found that the GIS viewsheds were mostly accurate, although limitations in available GIS data can overestimate potential visibility. The following section provides a description of the anticipated visibility of the Project and evaluates the Project under the first part of the Quechee Test. The attached photographic inventory (Appendix B) includes views that were documented during field investigation and represent locations with the highest potential for visibility of the Project.

## 2. Visibility

Viewpoints 1 through 5 (Appendix B) are taken from the Project site and show existing views from the Project area looking out towards the surrounding landscape. These views illustrate vegetation and landform immediately bordering the proposed solar array location that would limit views of the Project from the surrounding area. Field investigation confirmed that visibility of the Project would largely be restricted to sections and nearby areas along Holy Smoke Road, Trumbull Hill Road, and US Route 7.

**Holy Smoke Road**

Holy Smoke Road is a 1.25 mile long, gravel and dirt surfaced, Class 3 Town Highway. It begins northeast of the Project at East Road, proceeds roughly west, turns 90 degrees to the north midway along the northern edge of the Project, and ends at Trumbull Hill Road further north. Viewpoints 7 through 10, 12, and 13 represent views from Holy Smoke Road, including conditions during leaf-on and leaf-off. Viewpoint 7 is taken from north of the Project and viewpoints continue consecutively, proceeding south and then to the east.

Holy Smoke Road proceeds through a rural section of Shaftsbury and is lined by mature hedgerows near the Project site. North of the road, adjacent to the Project, are large open fields with two residential properties. After the road turns to the north, a third residence is located just west of Holy Smoke Road and immediately north of the Project parcel. Comparison images of the same view during both leaf-on and leaf-off conditions are provided from Viewpoint 8 (Appendix B, pages 8 and 9) and Viewpoint 10 (pages 11 and 12). Visibility would be limited from Holy Smoke Road, mostly isolated to the gaps in the roadside vegetation. During leaf-on conditions, the roadside vegetation would screen the majority of views from the roadway. When approaching from the east, the Project is screened by a mature stand of woods north of the Project, as shown in Viewpoint 13. When passing along the northern edge of the Project, views would be possible at gaps shown at Viewpoints 10 and 12, and filtered views would be possible during leaf-off conditions, shown in Viewpoints 9, 10, and 12. The original Project layout had the array area continuing north, into the open field west of the roadway, adjacent to Viewpoints 7 and 8. The updated Project layout relocates panels out of this field and retains an existing hedgerow the extends west from Holy Smoke Road. The revisions would mostly restrict any potential views from this area.

Overall, views would be limited from Holy Smoke Road. There would be filtered views for a stretch of approximately 1,000 feet along the roadway, immediately north of the Project. Within this stretch, there would be isolated locations with open views due to gaps in existing vegetations, and a stretch where no panels are proposed. Some limited views are likely when approaching the Project from the north, prior to turning 90 degrees to the east. Visibility would be significantly more restricted during leaf-on conditions. In addition, the petitioner is proposing a berm and landscape mitigation plantings north of the existing hedgerow along this stretch of Holy Smoke Road, and north of the fence project area. The berm and plantings would provide additional screening and reduce existing gaps in the vegetation, and in time would significantly lessen visibility along Holy Smoke Road. See Petitioners Exhibit, SS-MW-2 (revised), Appendix D, Landscape Mitigation Plans.

**Trumbull Hill Road**

Trumbull Hill Road is a gravel surface, Class 3 Town Highway. It is roughly oriented in a northeast-southwest alignment to the north and west of the Project area. It connects in the north with East Road and to the south with Airport Road and eventually Vermont Route 7a. Potential visibility from Trumbull Hill Road is limited to areas north of the Project. Map 3A, the Vegetated Viewshed Map (Appendix A), shows the closest visibility near the intersection with Holy Smoke Road, approximately two thirds of a mile from the closest panels. Field investigation observed open visibility of the Project site from slightly further away, approximately one mile from the closest panels, near Viewpoint 15.

Existing conditions along the stretch of Trumbull Hill Road with anticipated visibility of the Project are represented with photos provided at Viewpoints 15 through 18 (Appendix B). There is a combination of agricultural and rural residential uses in this area. The roadway is mostly lined by mature hedgerows and wooded areas, interspersed with large open fields. Beginning from the north, there are intermitted views through gaps in the roadside vegetation starting near Viewpoint 18. Images provided for each Viewpoint include leaf-on and leaf-off conditions. This stretch of Trumbull Hill Road is at a higher location and a drop in elevations to the south allow extended views to the Project area. Viewpoints 17 and 16 represent additional locations with isolated views. Near Viewpoint 15, there is a short stretch of open view where there is no vegetation along the side of the road.

Simulation 2 (Appendix C) is taken from a residential property along Trumbull Hill Road near Viewpoint 15 and illustrates conditions similar to views along the stretch of road with intermittent views. Changes to the Project layout as reflected in the supplemental filing significantly reduce the extent of visible portions of the array area visible from this area. In particular, removing panels from the northern area as previously proposed and retention of an intermediate hedgerow substantially reduce the presence of the Project in these views. To help illustrate this change, simulated views have been provided for both the original layout and the revised layout.

In review of visibility from Trumbull Hill Road, there would be intermittent visibility from a stretch of roadway starting from roughly one mile from the Project site. Views would be short in duration and visibility would be restricted to portions of the array area. Revisions to the layout would help to reduce the extent of visibility. Views would be greater during leaf-off conditions.

**US Route 7**

Immediately adjacent to the Project site, US Route 7 is configured as a three-lane, limited access expressway, with two northbound lanes. The road narrows and the second northbound lane ends towards the north end of the Project. Its relatively straight with large shoulders, and typically vegetated with mature woods set back along both sides of the road.

Beginning from south of the Project, the closest panels to US Route 7 are towards the southern end of the Project, typically over 400 feet from the edge of the road, but as close as 386 feet. There is a steep rise in elevation immediately west of the roadway and a combination of hedgerows and small stands of woods are located between the Project and Route 7. Continuing north, the edge of the array area is further west and a small, wooded peak referred to as Harrington Cobble separates the Project from the roadway. No substantial visibility is anticipated from these sections of road. North of Harrington Cobble is the proposed location of the Project and a new GMP substation to interconnect with GMP's 46 kV transmission line. A temporary access road is also proposed in this area to allow delivery of equipment and materials to the site directly from Route 7.

Viewpoints 20 and 21 (Appendix B) show existing conditions from US route 7 in the area north of Harrington Cobble, near the temporary access road. Project visibility is generally restricted to this stretch of road. Views would be primarily of the proposed substations, although filtered views of the small array area, northeast of the substation. To illustrate how the Project would appear from this area, Simulation 3 (appendix A). A drop in elevation between the road and Project area, along with limited vegetation, and vegetation removal for the temporary access road, allow views at this location. Continuing north, there is additional mature woods that separate the road and Project area and visibility would again be screened.

Although the Project site immediately abuts US Route 7 for a stretch just under 4,000 feet long, visibility would largely be screened by intervening terrain and mature vegetation. Views are anticipated for a very short stretch of road near the proposed temporary access drive. To help screen and soften visibility form US Route 7, the Petitioner has proposed landscape mitigation plantings. See Petitioners Exhibit, SS-MW-2 (revised), Appendix D, Landscape Mitigation Plans.

**Other Surrounding Locations and Roads**
Other surrounding roads and locations were reviewed during field investigation based on the viewshed analyses, including East Road, Vermont Route 7A, Vermont Route 67, and Twitchell Hill Road. No visibility of the Project site was observed from these locations. Limitations in available GIS data do not fully represent intervening topographic features, such a vegetation heights, and results in slight over estimations of visibility and no fully understand potential Project visibility. It is not anticipated that any significant views of the Project would be possible from these locations.

## 3. Private Residences

North of the Project site, there are three abutting residences, two that are along the north side of Holy Smoke Road where the roadway is oriented east-west, and one west of Holy Smoke Road after the road turns to the north. There are also two residences along Trumbull Hill Road that would have open views of the Project.

Along Holy Smoke Road, the two residences north of the roadway would be well screened from the Project. Viewpoint 11 is taken from in front of the eastern residence and shows combination of terrain and vegetation prevent views onto the Project site. The western of these two residences in line with Viewpoint 10 and would have some limited views as a result of the existing gap in the roadside vegetation. Additional landscape vegetation north of Viewpoint 10 would help screen this view. Some increase in visibility during leaf-off conditions is likely, and both of these residences would benefit from the proposed berm and landscape mitigation plantings proposed by the Petitioner.

The third residence along Holy Smoke Road is west of the roadway and immediately abuts the north property line of the Project parcel. Views from this residence is shown in Viewpoint 6. To best understand visibility from this location a photographic simulation was prepare at Viewpoint 6, provided in Appendix C as Simulation 1. Similarly, simulations from the both, the original and supplemental layout are provided. The original layout would have been immediately north of this residence and would have required the removal of the hedgerow seen at the back of the field in the existing conditions image. The revised layout substantially avoids impacts to this residence by relocating panels for the adjacent field and retaining the existing hedgerow. The Project is also proposed landscape plantings along the front of the hedgerow. The layout revisions substantially mitigate potential impacts from this location.

Similarly, layout revisions considerably reduce Project visibility from the two residences along Trumbull Hill Road. Viewpoint 14 is taken from the closest of these two residences, roughly one mile from the Project. From the rear deck, there are views that extend beyond 180 degrees and include direct views

towards the Project site. Viewpoint 19 is taken from further north and is also from the rear deck of the residence. Simulation 2, described in the description for Trumbull Hill Road utilizes the photo from Viewpoint 14. Layout revisions would substantially reduce the extent of the Project visible from these locations.

## 4. Suitability of Colors, Materials & Scale

The Project materials and colors would include the dark non-reflective photovoltaic panels, galvanized metal array racking systems, metal or black agricultural fencing, the gravel access drive, galvanized metal substation structures with the wooden utility poles, pad mounted transformers, and associated electrical equipment. When comparing the Project colors, materials, and scale, the area within and around the Project site is primarily an agrarian or rural landscape.

However, there are some nearby elements that are similar in character. There is a GMP 46 kV transmission line that crosses the northeast corner of the Project parcel. This line appears to be overbuilt with H-frame structure and has an appearance more typical of a larger 115 kV transmission line. It is also located within a 100 and 150-foot Vermont Electric Power Company (VELCO) easement. The second element near the project is US Route 7. This is a large roadway with three lanes, wide shoulders, interstate-style signage and marking, and galvanized guard rails. Other built structures within the immediate context of the Project is the residence and barn within the Project parcel, other nearby residences, and typical overhead utilities that run along the outside of the hedgerow along the north and east sides of Holy Smoke Road.

## 5. Impact on Open Space

Previous Act 250 and Section 248 decisions do not clearly define what is meant by the term "open space," and some regional plans and town plans have differing definitions of open space, if any at all. The Bennington County Regional Plan adopted March 19, 2015 and amended March 23, 2017 (the "Bennington Country Regional Plan" or "Regional Plan")[2] and the Shaftsbury, Vermont Town Plan, December 2, 2019 (the "Shaftsbury Town Plan" or "Town Plan")[3] both used the term open space throughout each of the plans, but do not clearly define what open space is. Both plans use the term in the context of development, preservation, conservation, and recreation. Within the Town Plan, the most direct reference to open space is Map 10.1 Town of Shaftsbury Open Space Lands. Map 10.1 identifies six different categories of open space lands, including park, forest, and Vermont Land Trust easement areas. The Project is not located within any of these areas.

If the Project location were to be considered open space for the purposes of this review, it should be noted that the Project site is generally not publicly accessible. And although the site consists primarily of enclosed agricultural fields, there is limited visibility from the surroundings area onto the Project site.

## 6. Summary

Review under the first part of the Quechee Test found that the proposed Project would have relatively limited visibility, restricted to a isolated location along US Route 7, primarily filtered views along Holy Smoke Road, and from locations north of the Project on Trumbull Hill Road. Where views would be possible, only limited portions of the Project would be visible. Significant visibility is not anticipated from immediately surrounding residential properties, however, two residences located approximately one mile to the north on Trumbull Hill Road are expected to have Project visibility. The Project incorporates

[2] http://www.bcrcvt.org/regional-plan.html
[3] https://shaftsburyvt.gov/dev/wp-content/uploads/2019/12/Shaftsbury-Town-Plan-Final-20191202.pdf

materials and colors similar to some elements within the surrounding landscape. The Project is not noted as open space in either of the Town or Regional Plans. US Route 7 is a major transportation Route is western Vermont, and although limited, the existing views onto the Project site from US Route 7 is currently natural in character. Due to the size and elevation of the Project, where visible the Project would result in contrast to the existing character of the visual landscape. Based on the above, the Project would result in adverse impacts to the aesthetics or natural or scenic beauty of the area.

## C. Quechee Test Part II – Evaluation of Undue Adversity

Since it was determined that the Project would result in an adverse impact to the aesthetics of the area, it is necessary to evaluate the Project under the three prongs of the second part of the Quechee Test.

### 1. Clear, Written Community Standard

- *Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area.*

Although Section 248 projects are exempt from municipal zoning and related permits, local plans and regulations are reviewed under the second prong of the Quechee test where it has been determined that a project may have a potential adverse visual impact. Under Quechee, this involves an assessment as to whether or not a project violates a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area. In Docket No. 7508, the Public Utility Commission held that "[i]n order for a provision to be considered a clear, written community standard, it must be 'intended to preserve the aesthetics or scenic beauty of the area' where the proposed project is located and must apply to specific resources in the proposed project area."[4] The Commission clarified that generalized statements and general scenic resource policies that are not focused on a particular scenic resource or that fail to offer specific guidance or measures to protect the resource cannot be considered "clear written community standards."[5] The Commission has further clarified that any such standard must expressly "designate the [project] parcel as a scenic resource worthy of protection."[6]

For the Shaftsbury Solar Project available local and regional planning documents were reviewed to determine if the Project would violate a clear written community standard. These include the Bennington County Regional Plan, the Bennington County Regional Energy Plan and the Shaftsbury Town Plan. Excerpts from these plans are included as Appendix D - Appendix D - Regional and Town Plan Excerpts. A review of these plans pertaining to aesthetics and/or the Project site are as follows:

**REGIONAL PLAN**

The Regional Plan offers an overview of the community needs at large, while largely deferring to the local towns for specific implementation and enforcement. The Regional Plan was amended on March 23 2017, to add the Bennington County Regional Energy Plan, adopted March 23, 2017 (the "Regional Energy Plan"), which has received an affirmative determine of energy compliance under 24 V.S.A. § 4352. Chapter XII, Energy within the Regional Plan provides an overview of the Regional Energy plan. Excerpts from both, the Regional Plan and Regional Energy Plan pertaining to aesthetics are as follows:

**I. INTRODUCTION**

[4] *Petition of Georgia Mountain Community Wind*, LLC, Docket No. 7508, Order of 6/11/2010 at p. 52
[5] *Id.* at 53.
[6] *Petition of Rutland Renewable Energy, LLC*, Docket No. 8188, Order of 3/11/15 at 85-86.

This Plan is organized under three main categories covering the **People, Landscape, and Infrastructure** that together shape and define the region. The section on **People** includes separate chapters dealing with the region's history, economy, education and child care, and housing. Chapters on land use, flood resilience, and natural, scenic, and historic resources comprise the **Landscape** section of the plan. The **Infrastructure** section considers the region's transportation systems, utilities, facilities, and energy resources. The unique "Shires" aspect of the region is present as a unifying theme throughout, and there is, of course, some overlap between the various chapters because of the many interrelationships present.

(Regional Plan at 3)

## II. VISION AND GOALS

### 2.1 Vision Statement

The Bennington County Regional Plan is part of a process that is intended to provide direction for the region as a whole and for its seventeen unique communities. For that process to be effective, it is important to present a clearly articulated vision. The following statement is based on aspirations and values that are common to the entire region:

> The Bennington County Region will be a place where all residents have an opportunity to enjoy an outstanding quality of life through an emphasis on its distinctive sense of place. The essential elements of that place include its natural, scenic, cultural, and historic resources…

(Regional Plan at 5)

### 2.2 Goals

… Development in rural areas should respect the need to protect important natural resources and scenic landscapes…

**… The quality of the region's natural, scenic, and historic resources must be protected to maintain the unique character of the area and to support recreational, public health, and economic development objectives**. Public investments, regulation, and creative development techniques should be employed, as appropriate, to protect valuable open spaces, air quality, water resources, wildlife habitat, fragile natural areas and critical ecosystems, scenic views, and historic sites, structures, and districts. Utilization of local natural resources should support regional economic and renewable energy development while ensuring that such development, including any resource extraction, is accomplished in an environmentally sensitive manner…

(Regional Plan at 6 to 7)

## VI. ECONOMIC DEVELOPMENT

### 6.2 Economic Sectors

Tourism and Recreation

The region is fortunate to be home to four state-designated scenic byways: the Molly Stark Trail (following Route 9 across the southern part of the region), the Stone Valley Scenic Byway (running north from Manchester along Route 30), the Shires of Vermont Byway (following the Route 7/7A corridor north from Pownal to Manchester), and the southernmost section of the Scenic Route 100 Byway in Stamford.

(Regional Plan at 46)

### 6.3 Critical Regional Economic Assets

Physical Assets

… Despite being so close to major population centers, the region has a distinctive rural character with a beautiful natural landscape…

… While the tourism and recreation sectors clearly benefit from the region's location, scenic character, and recreational amenities …

Natural Assets

The Bennington County region is home to other valuable natural assets, in addition to the scenic qualities of the landscape noted above…

… The region also has extensive untapped renewable energy resources.

The outdoor recreational assets of the region and their potential have been discussed at some length, but it is worth repeating that the Green Mountain National Forest, Appalachian/Long Trail, scenic roads and bicycle routes, rivers, streams, and lakes of the region offer numerous opportunities for business growth.

(Regional Plan at 50 to 51)

**VII. LAND USE - Landscape of the Shires**

**7.1 Overview**

… All of the land use policies and strategies discussed in this chapter, therefore, should be considered in light of the central goal of encouraging new mixed-use development in compact village and town centers and protecting the natural and scenic quality of the rural landscape.

(Regional Plan at 60)

**7.3 Villages**

The region's villages are historic centers community life that are key to properly focusing growth and development outside of urban centers. Villages provide rural communities with a unique sense of place and contribute to the historic and scenic quality of the entire region.

(Regional Plan at 66)

**7.6 Upland Forests**

The region's upland forests also are critical to the scenic character of the region, and provide a natural backdrop to rural valleys, farmland, and historic settlements.

(Regional Plan at 74)

**VIII. NATURAL RESOURCES**

**8.1 Overview**

The natural resources of Bennington County are integral to the region's landscape…

… the principal resources are discussed in the following sections:

*Scenic and Recreational Resources

(Regional Plan at 81)

**8.9 Scenic and Recreational Resources**

Scenic Resources

The scenic quality of the landscape is one of Bennington County's most important assets. The visual appearance of the towns' natural and built environment, and the quality of life that it represents, is important to residents, tourists, businesses, and to future economic development.

The region is characterized by its expansive valleys that have been able to support a rich variety of rural and urban development. That development has occurred in close proximity to distinctive upland features which have themselves limited and channeled the direction of such growth. The varied nature of the valley

landforms and built environment juxtaposed with natural green mountainsides gives the Bennington Region its unique sense of place.

Many individual factors come together to create these special visual landscapes. Particular "scenic elements" reflect both characteristics that are unique to the region and/or individual communities as well as certain features that are widely recognized as adding visual interest to a landscape. Bennington, Manchester Village, and Peru have completed scenic resource inventories and assessments that discuss each of these elements in detail: open fields, mountains, water, distant views, gateways, scenic roads and public places, historical sites and districts, and other unique local features. The scenic resource studies also discuss how those features are organized in the landscape to create pleasing views. The "visual qualities" of landscape contrast, order and harmony, focal points, spatial quality, and intactness that make a particular view special and unique to the community must be protected to retain the integrity of the resource.

The scenic quality of a landscape can be affected, positively or negatively, by change. A number of landscape features are particularly sensitive to change, among them: views across open fields, prominent ridgelines or hillsides, historical buildings and districts and gateways to those districts, and scenes that include important contrasting elements such as water.

Municipal land use plans and regulations can reinforce the scenic quality of the landscape by focusing development in historical village centers and by preserving the rural character of the outlying countryside. Several local communities have adopted special regulations that preserve scenic resources by requiring aesthetically sensitive design of subdivisions and commercial buildings. In addition, zoning regulations can establish very specific standards and review procedures for new and altered buildings in designated historic design review districts.

Nonregulatory tools also can be used to protect identified scenic resources. Towns and villages should work with conservation organizations such as the Vermont Land Trust to acquire properties, or conservation or scenic easements to properties, that have particular scenic significance to the community. Local and state designated scenic roads, including the region's three state designated byways, can help provide support for preserving and promoting scenic roadway corridors.

Special attention should be given to visual gateways: points of transition along a public highway where it is evident that the traveler is arriving at a unique place. Gateways are located at entry points to historical downtowns and village centers and at places along rural highways where significant visual elements of the landscape first appear. These features can be improved through effective planning of adjacent land uses and integration of site features such as landscaping and careful placement of historic district signs.

Recent interest in development of renewable energy resources raises a number of important issues. Commercial-scale wind turbines will be highly visible and should be located only in locations approved by local communities. Commercial-scale solar energy facilities occupy large open areas and should not be sited at important gateway locations or in the foreground of viewsheds that have been identified by communities as being of particular value. Biomass (wood) heating and electric generation involve significant tree harvesting and may include plants with smokestacks and visible plumes of steam; the environmental and scenic impacts of those operations must be considered. Finally, small-scale hydroelectric generation can impact stream water quality, fish habitat, and aesthetics; restricting development to existing dam sites will greatly minimize any such concerns.

(Regional Plan at 111 to 115)

**8.10 Policies and Recommendations**

14. New building construction on visually prominent shorelines, hillsides, mountains, and ridgelines should include provisions for siting and screening structures to protect important scenic values. Municipalities are encouraged to adopt appropriate ordinances to ensure that locally significant scenic resources are protected. Wind generation and tele-communication facilities on mountains and ridgelines may be appropriate to meet identified public needs, but should be avoided when construction would destroy critical natural resources or degrade a viewshed identified as essential to maintaining the unique character of a community or the region.

(Regional Plan at 118)

## X. TRANSPORTATION – Infrastructure of the Shires

### 10.2 Highway System

Scenic Roads and Historic Bridges

The region's landscape is most often viewed from its public places, and the most visited public places in a community are its roads. As such, public highways are extremely important to the region's overall scenic character. Key points along principal highway corridors serve as important visual "gateways" to villages and other historic areas. Roadways also provide visual access to near and dis-tant scenic views. Of course, roads can be scenic features in and of themselves: a winding country lane lined by a stone wall and a village street passing under a canopy of mature trees are distinctive scenic resources.

While many, or most, of the roads in the region can be considered scenic, several characteristics clearly contribute to the aesthetic appeal of a roadway. In general, narrow local roads that blend harmoniously with the surrounding countryside are more scenic than wide roads that don't follow natural or historic elements of the landscape. Landscape features that are adjacent to a roadway become a part of the road corridor: without stone walls, fence lines, trees, and similar elements the overall scenic value of a roadway can be significantly diminished. Some scenic roads also draw the traveler's eye along the centerline of the road to a unique view or distinctive landscape feature in the distance.

These views from roadsides are often just as important as the scenic character of the road itself. Some local roads offer delightful forays into deep forests while others bring motorists, bicyclists, and other travelers to views of fields, farms, mountains, or historic buildings. In these instances, scenic viewpoints are open to the principal view and are not blocked or disrupted by incompatible structures or other objects in the foreground. At the same time, an attractive foreground can greatly enhance roadside views.

Municipalities can formally designate local scenic roads and adopt ordinances to protect their character by requiring special consideration before the roadway dimensions, surface, or roadside vegetation located within the public right-of-way are changed. New developments in areas served by scenic roads should be planned to minimize heavy use of those roads that would lead to subsequent demands for widening or other changes to the roads.

The region's state-designated scenic byways were discussed in the economic development chapter of this plan. Continued cooperation between the BCRC, local governments, and state agencies will ensure that these scenic state highway corridors will continue to be important regional resources.

(Regional Plan at 137)

## XII. ENERGY

### 12.4 Renewable Energy

Solar Energy

… A primary consideration in siting a commercial solar electric generating facility should be the availability of as much unobstructed sunlight as possible. Other factors to consider are access to electrical transmission and/or distribution facilities, avoidance of critical natural resources and prime agricultural land (better used for local food production), the presence of flood or fluvial erosion hazard areas that could damage the installation, and aesthetic considerations (i.e., a large solar array adjacent to an historic district or in the foreground of an important scenic viewshed would be inappropriate).

(Regional Plan at 182)

## XIII. COORDINATION AND IMPLEMENTATION

### 13.2 Implementation

Comprehensive Regional Planning and Regulatory Review

… The BCRC conducts a staff review of all Act 250 and Section 248 projects and will actively participate in proceedings by attending hearings and providing testimony when it is determined that a project will have "substantial regional impact." A development is considered to have substantial regional impact when it is determined by the BCRC to have one or more of the following characteristics:

4. A development that may impact any regionally significant natural or cultural resource. These resources include, but are not limited to: wildlife habitat, sand and gravel resources, important hydrological resources, unique and fragile natural areas, public water supply watersheds and wellhead protection areas, prime agricultural and forest resources, important scenic resources, and historic and archaeological resources.

(Regional Plan at 196 to 197)

## BENNINGTON COUNTY REGIONAL ENERGY PLAN

On June 21, 2017, the Vermont Department of Public Service issued the Bennington County Regional Energy Plan a certificate of compliance with the State's energy planning requirements. The Regional Energy Plan outlines energy goals for the region, including meeting the state goal of obtaining 90% of all energy used in Vermont from renewable sources by 2050.

### SECTION IV. ENERGY STRATEGIES

**Wind And Solar Energy Resource Guidelines and Maps**

Regional And Local Constraints

Regional constraints are physical or human conditions that have been identified by the region for consideration in developing renewable energy facilities that are not included in the statewide Known and Possible Constraint lists…

… Each municipality in the region can also add locally-identified resources—constraints such as scenic viewsheds or unique natural areas, as well as preferred sites for energy generation, such as abandoned gravel pits—to their local energy plans.

(Regional Energy Plan at 82)

Renewable Energy Generation Facility Siting Guidelines

The following list of guidelines explains the process by which site feasibility should be determined for renewable energy generation facilities in the BCRC region. It is the responsibility of the developer of a facility to review and complete this process.

5. Determine any additional considerations that are relevant to the project, such as:
   A) Any scenic viewsheds that are impacted;
   B) Siting and screening needed to mitigate visual impact on nearby properties;

(Regional Energy Plan at 92)

### APPENDIX D. TOWN ENERGY PLANNING & RENEWABLE SITING GUIDELINES

Purpose

The following section is intended to be used as a resource by municipalities in the Bennington Region for developing renewable energy facility siting guidelines…

Process

**Step 2** Establish general facility siting guidelines.

- Preservation of natural resources, scenic views, and other physical and aesthetic conditions critical to the sense of place in a community should be maintained; areas of high importance should, in such instance, be specifically identified in municipal energy plans as sites that are not appropriate for facility development (discussed in Step 3);

(Regional Energy Plan at 161 to 162)

Most specifically, the Regional Plan includes two sections that directly address scenic resources, including Chapter VIII, Natural Resources, Section 8.9 Scenic and Recreational Resources – Scenic Resources, and Chapter X Transportation, Section 10.2 Highway System – Scenic Roads and Historic Bridges. "The scenic quality of the landscape is one of Bennington County's most important assets." (Regional Plan at 111) However, the Scenic Resources section does not list specific scenic resources, and instead displays "significant natural areas" on Map 8-8 Unique Natural Features. (Regional Plan at 112) The only nearby "significant natural area" appears to be what is described as the Shaftsbury Cobbles (Regional Plan at 113) However, no additional information is provided in the Regional Plan, though this appears to be in reference to Harrington Cobble and Bucks Cobble, both of which are located outside the Project property and shown on Figure 1. The Regional Plan does discuss how some towns have completed scenic resource inventories and discusses the types of elements included in those inventories. It also discusses in general terms how both regulatory and nonregulatory tools can be used to protect scenic quality. The Regional Plan also notes that "(c)ommercial-scale solar energy facilities occupy large open areas and should not be sited at important gateway locations or in the foreground of viewsheds that have been identified by communities as being of particular value." (Regional Plan at 115)

In the Scenic Roads and Historic Bridges section, the Regional Plan states that "(t)he region's landscape is most often viewed from its public places, and the most visited public places in a community are its roads." (Regional Plan at 136) This section describes how roads can provide access to scenic views, but also how roads can become part of the scenic resource. It notes that there are state-designated scenic byways in the region and that municipalities can formally designate scenic roads. The Regional Plan does not provide an inventory of scenic roads in the region.

Chapter XII, Energy and the Regional Energy Plan include siting guidelines for renewable energy facilities and solar facilities. (Regional Energy Plan at 92) These guidelines are general, including that projects should consider the impacts to identified scenic resources and viewsheds, but notably does not include site-specific information for siting solar generation facilities, or screening requirements.

Based on this review, the Regional Plan does not provide clear written standards for the Project site or the area surrounding the Project. The Regional Plan provides general statements and offers support, recommendations, and guidance for its member municipalities to implement scenic resource protection within their communities. The Project would not conflict with the goals of the land use patterns of the region. Due to the limited visibility of the Project from surrounding areas, the Project would not unnecessarily impact any highly scenic landscapes or viewsheds within the region.

## TOWN PLAN

The Town Plan was reviewed to assess how the Project may affect specific policies and goals intended to protect scenic resources or scenic quality within Shaftsbury.

### 3 | ECONOMYAND POPULATION

**Policy 3.4.1** Support the creation of art activities, events, and art installations**.**

**Actions**

- Include aesthetic, not just utilitarian and financial, considerations in the design of public buildings, amenities, and infrastructure.

(Town Plan at 5-6)

## 4 | PHYSICAL CHARACTERISTICS AND NATURAL RESOURCES

**Wetlands**

The Vermont Significant Wetlands Inventory shows approximately 2,080 acres of wetlands within the Town. Benefits provided by wetlands include flood and storm water control, maintenance of surface and groundwater quality, open space and aesthetic appreciation, educational and scientific research areas, wildlife habitat, and sources of nutrients for freshwater food chains.

(Town Plan at 14)

## 5 | LAND USE

**Land Use Districts**

**Rural Residential (R) Districts**

The purpose of the Rural Residential Districts is to ensure the preservation of natural resources, scenic qualities and agricultural land while accommodating relatively low-density residential development.

(Town Plan at 18)

## 10 | RECREATION

**Goal 10.1** Make Shaftsbury a more active and attractive community by developing and promoting its outdoor resources.

**Policy 10.1.1:** Provide and improve trails, scenic roads and bikeways, and parks and other outdoor spaces to enhance recreational opportunities**.**

**Policy 10.1.2** Designate and promote scenic roads and bikeways within the town.

**Action**

- Consider for official "scenic" designation the following roads and bikeways:

  West Mountain Road - La Clair Road - Murphy Hill Road
  Coulter Road - Tinkham Road
  Myers Road
  Cold Spring Road
  Maple Hill Road - Harrison Road: from Jack Cross Road to East Road
  East Road: from Route 7 overpass to Arlington Town Line
  Trumbull Hill Road: from Holy Smoke Road to end
  Potter-Montgomery Road
  Buck Hill Road
  Rollin Road Stone Bridge

(Town Plan at 31)

**Recreational Considerations**

Residents of Shaftsbury have access to many recreational opportunities. Lake Shaftsbury State Park, Howard Park (a municipal park that is within walking distance from Shaftsbury Town center), Lake Paran, the village park on Cleveland Ave, a municipal forest and The Robert Frost Trail are the high points…

… Lake Shaftsbury State Park is located in the northern part of Shaftsbury and consists of 84 acres of land that surround a picturesque lake, a picnic area, a concession stand, a pavilion, and a group campground. The Park provides opportunities for swimming, boating and fishing. Boat rentals, volleyball courts, horseshoe pits and a 1-mile scenic trail that circles the lake make Lake Shaftsbury a destination for residents and visitors alike.

(Town Plan at 32)

**12 | ENERGY**

**Policy 12.1.1** The town of Shaftsbury will not impose screening or other restrictions on renewable energy development beyond those imposed for other types of building and industry. the town does not seek to regulate renewable energy beyond regulations imposed by the public service board. the town should not institute zoning or other ordinances that would limit renewable energy development.

(Town Plan at 36)

**Suitable Areas for Wind, Solar, Biomass and Hydroelectric Resources**

The Bennington County Regional Energy Plan, completed in 2017, developed siting guidelines for renewable energy resources based on:

4. Any additional considerations such as scenic viewsheds, necessary screening to reduce impacts, location of energy and transportation.

(Town Plan at 37)

**APPENDIX B | HISTORY**

Transportation improvements have played a significant role in shaping the town. The railroad first came to Shaftsbury in 1852. This increased trade and travel. Greater connections of local and state roads have made it easier for people to work and travel in and from Shaftsbury. With the advent of a State Scenic Byways destination for Shaftsbury portion of Historic Route 7A in 2013, visitors will be more aware of Shaftsbury's history and beauty.

(Town Plan at 48)

Scenic resources, aesthetics, and natural beauty are noted throughout the Town Plan. Most specifically, Chapter 10, Recreation, lists several roads to be considered for official "scenic" designation. Portions of East Road, Trumbull Hill Road, and Buck Hill Road are included in the list of roads to be considered that are near the Project. As described above, limited visibility would be possible from Trumbull Hill Road. No visibility of the Project is expected from the other roads. However, these roads are only noted for consideration and are not currently designated scenic roads. The Town Plan also notes that Vermont Route 7a is part of the Shires of Vermont Byway. At the closest location, Vermont 7a is over 1.5 miles from the Project site and would not have visibility of the Project (see Appendix B, Viewpoint 22). The Project is located within the Rural Residential 40 Land Use District. The Town Plan describes "(t)he purpose of the Rural Residential Districts is to ensure the preservation of natural resources, scenic qualities, and agricultural land…" (Town Plan at 18, see also at 38) As described in the Evaluation of Adversity, although it was determined the Project would result in adverse impacts to the aesthetics or scenic or natural beauty of the area, views of the Project would be limited. Furthermore, the Town Plan supports the development of renewable energy development and states, "(t)he Town does not seek to regulate renewable energy beyond regulation imposed by the Public [Utility Commission]." (Town Plan at 36) Shaftsbury does not currently have an adopted screening ordinance for solar projects.

Review of the Town Plan did not identify a clear written community standard that the Project would violate, and it does not specifically identify the Project site as a scenic resource. Additionally, the Town Plan does not provide guidance on how to protect scenic resources.

**SUMMARY OF COMMUNITY STANDARDS REVIEW**

In review of the Bennington County Regional Plan, including the Regional Energy Plan and Shaftsbury Town Plan, both plans recognize the presence and importance of scenic resources within the region. However, neither plan provides specific language that would be considered a clear written community

standard. Review of the plans found that the Project would not violate any standard meant to preserve or protect scenic resources.

## 2. Mitigation

- *Has the Applicant Taken Generally Available Mitigating Steps which a Reasonable Person would Take to Improve the Harmony of the Project with its Surroundings?*

Based on our review, the Project has incorporated significant mitigation measures. In particular, the layout of the proposed array was modified to reduce prominence and visibility of the Project from areas to the north. Revisions incorporated in the supplemental filing represent a significant effort to mitigation visibility of the Project. Landscape screening proposed for the Project, which includes a mix of native evergreen and deciduous plantings, will help augment the existing roadside screening that currently exists along Holy Smoke Road (see Appendix B, Viewpoints 7 through 10). Visibility from Route 7 will also be screened with a mix of evergreen and deciduous vegetation.

Adjustments made to the Project layout (dated January 19, 2024) and the resulting reduction of Project visibility are particularly apparent when reviewing simulations from 708 Holy Smoke Road (see Appendix C, Simulation 1) and 1200 Trumbull Hill Road (see Appendix C, Simulation 2). Simulations include representation of the Project based both on original filing and the revised filing. The revised layout will preserve an internal hedgerow that substantially reduces visibility and prominence of the Project as would be seen from Trumbull Hill Road and surrounding areas, as well as from the adjacent residence. Overall, mitigation elements include the following:

- The Project has been located and designed to take advantage of surrounding landform and vegetation to limit visibility from the surrounding area.
- The Project is setback approximately 130 feet from Holy Smoke Road and 386 feet from US Route 7.
- The Project is located largely within existing open fields that limit the need for vegetation clearing.
- The Project would use non-reflective panels to reduce the potential for glare.
- Project components are low in profile and rows of panels would contour with the existing topography.
- All of the Project internal wiring would be installed underground between array racks and the transformer location.
- The Project is located adjacent to an existing GMP transmission line which eliminates the need for new or upgrades interconnection infrastructure, such as new overhead transmission lines.
- Proposed landscape mitigation is being proposed to further screen a soften the limited visibility that would be created by the Project.

The Project incorporates generally available mitigating steps which a reasonable person would take to improve the harmony of the project with its surroundings.

## 3. Offensive or Shocking

- *Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?*

When evaluating whether a project would offend the sensibilities of the average person, the criteria to make this assessment is related back to the first part of the Quechee Test: how the project 'fits' within its surroundings. As stated in Section II. Methodology, "a project would be found to offend the sensibilities of the average person if the project would be so out of character with its surroundings or so significantly diminish the scenic qualities of the area as to be offensive or shocking to the average person. In determining whether a project would offend the sensibilities of an average person, the Commission would consider the perspective of an average person viewing the project from both adjoining residences and from public vantage points."

While the evaluation of impacts found that views of the Project would be adverse, the Project would not be shocking or offensive. Several factors reduce the level of adversity. The Project is sited to take advantage of surrounding landform and vegetation to limit visibility. Visibility from Holy Smoke Road, and Route 7, locations closest to the Project, would be very limited, reduced to isolated and highly filtered views of limited portions of the Project. Other than two isolated gaps in road side vegetation along Holy Smoke Road, and at the temporary access along US Route 7, any visibility would be through existing vegetation, with most views only possible during leaf-off conditions. Proposed landscape mitigation plantings would narrow existing gaps and reinforce existing vegetation with evergreen plantings that in time will provide screening yearlong. Locations that would have potential visibility of larger portions of the Project are relatively distant; over one mile from the Project area. This distance will reduce the prominence of the Project. At no location will the full extent of the Project be perceptible within a single view.

Solar projects are commonly visible within the Vermont landscape. The Project as designed would be less apparent than many other projects within the state. Along with the incorporated mitigation measures, the Project could not be found to be so out of character with its surroundings to significantly diminish the scenic qualities of the area. For these reasons, the Project would not be considered shocking or offensive to the average person.

## D. Conclusions of Aesthetic Analysis

The findings of this analysis conclude that the proposed Project would have an adverse effect on the scenic or natural beauty or aesthetics of the area. However, the adverse effect WOULD NOT be undue. The Project would not violate any of the three criteria of the second part of the Quechee Test.

- The Project would not violate a clear written community standard intended to preserve the aesthetics or scenic beauty of the area. Our review found that both the Regional and Town Plans recognize the importance of scenic quality within the area. However, neither plan identifies the Project site as a scenic resource or provides language that would be considered a clear written standard applicable to the Project site.
- The Project does incorporate generally available and reasonable mitigation, including reducing the northern extent of the proposed array area and subsequent reduction of vegetation clearing near Holy Smoke Road (see SS-MW-2 (Revised) and associated revisions to the Project dated January 19, 2024). In particular, the site selected for the Project, and the siting of the array within the Project parcel, retention of nearby roadside vegetation, and the addition of landscape screening along the north and east areas of the Project significantly limits visibility of the Project from nearby roads and properties.

- The Project would not be out of character with its surroundings or diminish the scenic qualities of the area such that the Project would be considered shocking or offensive. Solar projects are readily visible components within the Vermont landscape, and setbacks from nearby roads and properties and limited visibility would significantly reduce the prominence of the array. Although the Project was found to result in adverse impacts, visibility of the Project is similar and to a large extent less than other solar electric projects within Vermont.

In conclusion, the Shaftsbury Solar Project would meet the Quechee Test insofar as its impact on aesthetics would NOT be UNDULY ADVERSE.

# III. Orderly Development Within the Region

Section 248(b)(1) of Title 30 of the Vermont Statutes Annotated requires that the Vermont Public Utility Commission find that a proposed project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. For generation projects, Section 248(b)(1)(C) further states that "the Commission shall give substantial deference to the land conservation measures and specific policies contained in a duly adopted regional and municipal plan that has received an affirmative determination of energy compliance under 24 V.S.A. § 4352. In this subdivision (C), 'substantial deference' means "that a land conservation measure or specific policy shall be applied in accordance with its terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy."

Even when a town plan has received a determination of energy compliance, provisions of a town plan must only be considered "to the extent they qualify as land conservation measures or where there are screening requirements of a municipal ordinance or bylaw."[7] The Vermont Supreme Court has ruled that "broad and general statements in Town and Regional Plans are not sufficiently specific to constitute a basis for denying a permit under § 248."[8] Instead, for purposes of Section 248(b)(1), provisions of a regional or municipal plan will only be given due consideration or substantial deference if they qualify as "land conservation measures" that apply clearly and specifically to a defined area or areas.[9] As such, the particular language used within Town and Regional Plans is important to determining whether a standard is clearly written and specifically applies to a given Project to constitute a land conservation measure.

For the Shaftsbury Solar Project, the Bennington County Regional Plan, including the Bennington County Regional Energy Plan, and the Shaftsbury Town Plan set forth the standards for orderly development of the region for the Project location. The following discusses the standards, land conservation measures, and specific policies as detailed in the Regional Plan and Town Plan; the relevant pages from the plans are included in Appendix D.

## REGIONAL PLAN

Regional plans help guide many issues within the region, including development, mostly in the form of recommendations and support to its member towns. The Bennington County Regional Plan includes chapters which cover economic development, land use, natural resources, transportation, utilities, and energy. Topics included in the Regional Plan which pertain to orderly development of the region and are applicable to the Project, included overall regional goals, land conservation policies, and recommendations for the regions approach to renewable energy, including siting recommendations for solar projects.

Chapter 1, the introduction of the Regional Plan states, "Regional planning commissions are statutory parties to state land use (Act 250) regulatory proceedings and participate in many public utility (Section 248) hearings as well. An effective regional plan ensures that projects subject to those reviews support regional development and conservation objectives." (Regional Plan at 3) Chapter 2, Vision and Goals, proceeds to outline an overall vision for the region. Overall goals include conservation and responsible development of the regions agricultural and forest resources, land conservation to promote flood

[7] *Application of Emancipation Energy, LLC for A Certificate of Pub. Good, Pursuant to 30 V.S.A. Ss 248 & 8010, for A 150 Kw (Ac) Solar Net-Metering Sys. in Middlesex, Vermont*., No. 20-1848-NMP (Order of June 21, 2022).
[8] *In re Petition of Apple Hill Solar LLC*, 2021 VT 69 at ¶ 36.
[9] *Id.* at ¶¶ 36, 43.

resiliency, and acquisition of conserved lands for recreation. Overall goals also include the appropriate utilization of renewable energy sources.

Under chapter 4, Population and Housing, the Regional Plan promotes the use of transferable development rights which transfers density from areas planned for conservation. Chapter 7, Land Use, directs the location of development in the region and organizes land use into four main land use districts. In general, the Regional Plan encourages development within growth centers. The Project is located within the Rural Areas land use district. The section on Rural Areas states, "(m)ost new development should be directed to established growth centers, but some development has occurred, and will continue to occur, in rural areas outside of villages and urban centers. Such growth must be planned to avoid impacts on the region's rural character and environmental quality, and must not result in excessive costs to municipalities." (Regional Plan at 68) The same section later states "(c)ertain small-scale industries… may be compatible with, and most appropriate in, outlying rural areas." (Regional Plan at 69) In the Upland Forest land use section the Regional Plan emphasizes conservation of upland forest areas; the Project is not within the Upland Forest Land Use District (Regional Plan at 63). Chapter 7 recommends that the Regional Planning Commission assist municipalities to prepare bylaws for land conservation and to develop land and forest management plans.

Chapter 8, Natural Resources, outlines the principal resources noted for preservation and conservation, including, water resources, clean air, agricultural land, forest resources, earth resources, fish and wildlife, unique natural features, and scenic and recreational resources. The Shaftsbury Solar Project Application includes studies and analyses which address the several natural resources covered in Chapter 8 purporting that the Project does not result in under impacts to these resources.

Chapter 8, section 8.5, Forest Lands, the Regional Plan states "(a) number of strategies can be employed to help retain forest cover and to maintain and enhance their values. Ownership of land by a public or non-profit entity is an effective strategy that has been widely used in the Bennington Region; a large percentage of the region's forests has been conserved through acquisition. Other public investments, ranging from conservation easements to taxation programs such as the Use Value Appraisal program, also have benefited large areas of forest land in the region." (Regional Plan at 101) Map 8-4 Conserved Lands identifies five types of land conservation, including Federal, State, Municipal, Conservation Organization, and UVA (Use Value Appraisal) Parcels. Map 8-4 does not appear to show the Project Parcel within a UVA Parcel.

Chapter 8 also discusses Scenic Resources, also reviewed in the Aesthetic Analysis above. The Regional Plan provides guidance to its member municipalities and notes, "(n)onregulatory tools also can be used to protect identified scenic resources. Towns and villages should work with conservation organizations such as the Vermont Land Trust to acquire properties, or conservation or scenic easements to properties, that have particular scenic significance to the community. Local and state designated scenic roads, including the region's three state designated byways, can help provide support for preserving and promoting scenic roadway corridors." (Regional Plan at 115)

In review of land conservation measures and specific policies within the Regional Plan, emphasis is given to concentrate development within the growth centers of the region and conserving the Upland Forest areas, and that some uses may be most appropriate in outlying rural areas. However, the Regional Plan concentrates on providing guidance, recommendations, and resources to its member municipalities, as well as conservation groups and organizations to implement conservation measures within the region.

The Regional Plan includes Chapter 12, Energy, which provides a general overview of the region's energy goals, policies, and recommendations, while referencing the Regional Energy Plan as having more

extensive information. Chapter 12 notes that, "energy is fundamental to the topics covered in every other section of this plan, from housing and land use to transportation and economic development." (Regional Plan at 174) Section 12.4, Renewable Energy, states, "(e)ven as the amount of fossil fuels consumed by the region's residents and businesses declines over time, a considerable amount of energy will be needed to support sustainable economic progress, heat buildings, operate machinery and appliances, and facilitate transport of people and goods. Conservation and efficiency will facilitate maintenance of a healthy economy and quality of life using less energy, while renewable energy resources will provide much of the energy that is used. Because of the cost required to acquire, process and transport these energy resources, much of the region's future renewable energy will need to be derived from local sources." (Regional Plan at 181) Policies and recommendations number 10 in Chapter 12 notes that the region should, "(s)upport economically and environmentally sound development of the region's renewable energy resources." (Regional Plan at 189)

## REGIONAL ENERGY PLAN

As discussed above, the Bennington Country Regional Energy Plan received a certification of energy compliance from the Vermont Public Service Department. Within the Introduction, Section 1, it notes that an important aspect of the planning process with using renewable energy generation goals to obtain the state of Vermont goal of obtaining 90% of all energy used in Vermont from renewable sources by 2050. The Regional Energy Plan includes sections that cover Regional Energy Supply & Demand, Future Energy Use, Energy Strategies, and Adaptation of Strategies.

Section 2, Regional Energy Supply & Demand discusses electricity from renewable energy sources within the region and includes the following regarding solar generation:

> **Solar Generating Capacity**
>
> The Bennington Region currently has close to 10 MW of installed solar photovoltaic generation capacity. The largest project in full operation is a 2.2 MW commercial solar array located at the former race track property in Pownal. Additional MWs are generated by commercial and small residential projects that are ground-mounted, with the remainder being small-to-medium sized roof-mounted systems. Just over 0.7 MW are privately owned residential projects. At the present time, only 41 kW of generating capacity are located on farms.
>
> As suggested by the large commercial array in Pownal, that town is home to the greatest generating capacity in the region. Another 2.7 MW of solar generating capacity was developed in Pownal in 2016 through two separate projects, both located in former gravel pits. Nearly 1 MW of solar capacity existed in Bennington as of early 2016 (one 500 kW facility on the west side of town, a 150 kW facility in North Bennington, and numerous small projects throughout the community). At least 12 MW of additional capacity have been proposed in Bennington during the past year: near the County Sheriff's office on Route 7, at the Maneely Industrial Park, and at four locations near the center of town and Route 279. One of the projects planned for an area just northeast of the Route 7/279 interchange, however, was recently denied a Certificate of Public Good by the Public Service Board. Other towns with relatively large existing solar generation include Manchester (about 500 kW) and Dorset (about 250 kW). An additional 500 kW project is under consideration in South Shaftsbury.
>
> (Regional Energy Plan at 34)

In Section 3, Future Energy Use, it is noted that "electricity usage in the state is projected to grow by almost 80% statewide by 2050. As noted above, this growth is driven largely by increased use of electricity as a transportation fuel for light-duty vehicles and to drive efficient space heating technologies such as air source heat pumps." (Regional Energy Plan at 41) The future Energy Use section continues to note, "(c)urrently, as was discussed in Section II, the Bennington region only produces about 4% of the electricity it consumes, deriving from about 10 MW of solar and a very small amount of wind and hydro. Electricity production in the region will need to increase dramatically based on the LEAP scenario

modeling analysis. By 2050, the region should be generating a significant amount of electricity from local renewable resources. Approximately 112 MW of new generating capacity (85 MW solar; 26 MW wind; and 1 MW hydro) will be required within the region to support attainment of state energy goals." (Regional Energy Plan at 56)

Section 4, Energy Strategies continues to discuss the need to "significantly increase the amount of electricity generated from renewable energy sources within the region." (Regional Energy Plan at 76) The subsection, Electricity Conservation & Generation from Renewable Sources, outlines five strategies. Strategy 5 states:

> The Bennington Region will need to develop over 100 MW of new generating capacity from hydro, wind, and solar resources within the region over the next 35 years. It is extremely important that those generating facilities be sited in locations with good access to the energy resources while not adversely impacting important environmental or community resources. The renewable energy resource maps in this section illustrate the guidelines considered when determining appropriate locations for these facilities. These maps and guidelines can be used to evaluate preferred locations for generation around the region, to satisfy Act 174 mapping requirements for municipal and regional plans, and to provide input during Public Service Board regulatory (Section 248) proceedings. Municipalities are encouraged to reference renewable energy resource maps for their own use and to adopt and modify the guidelines based on local concerns and opportunities.
>
> (Regional Energy Plan at 34)

The Regional Energy Plan proceeds to outlines 'Known' and 'Possible' constraints:

> **KNOWN CONSTRAINTS**
> **Conditions that preclude development.**
>
> Known Constraints include ecological and physical conditions that would very likely prevent the development of renewable energy infrastructure according to existing development requirements and Vermont environmental regulations. Known Constraints have been "masked" out of the resource maps. In other words, any location where a Known Constraint exists appears blank, the same as areas where wind and solar resources are likely to be poor.
>
> **Known Constraints** include:
>
> 1. **Vernal Pools:** Seasonal wetlands that provide conditions for various species' habitats. (Mapping includes a 50 foot buffer around all Vernal pools.)
> 2. **DEC River Corridors:** Rivers and land adjacent to rivers that is necessary to maintain the natural movement, or meandering, of a river.
> 3. **FEMA DFIRM Floodways:** Areas most likely to be impacted by base floods (1% annual likelihood) where development is limited.
> 4. **State-Significant Natural Communities and Rare, Threatened, and Endangered Species:** Areas where natural conditions exist and include rare species or a valuable educational scientific resource.
> 5. **National Wilderness Areas:** Federally owned land that is preserved in natural conditions.
> 6. **Class 1 and 2 Wetlands:** All identified Class 1 and 2 Wetlands
>
> **POSSIBLE CONSTRAINTS**
> **Conditions that could (but will not necessarily) prevent development.**
>
> Possible Constraints include ecological and physical conditions that might impact or prevent the development of renewable energy infrastructure according to existing development requirements and Vermont environmental regulations. Possible Constraints are included in the "Secondary Resource" areas (defined on the following page).
>
> **Possible Constraints** include:

1. **VT Agriculturally Important Soils:** All soils rated as agriculturally important, including "Prime" agricultural soils and soils of statewide or local importance.
2. **FEMA Special Flood Hazard Areas:** All zones with a 0.2% chance or higher of flooding annually.
3. **Protected Lands:** All state fee lands and privately owned conserved lands.
4. **Deer Wintering Areas (DWAs):** Identified deer winter habitat area.
5. **ANR VT Conservation Design Highest Priority Forest Blocks:** Unfragmented natural areas with high ecological and habitat value.
6. **Hydric Soils:** Areas where soils are saturated year, leading to biological conditions similar to wetlands.

(Regional Energy Plan at 81)

After identifying the constraints to be considered when siting renewable energy generation development, the Regional Energy Plan proceeds into defining Prime Resource and Secondary Resource areas for development. It also discusses Regional and Local Constraints, indicating the constraints listed above are statewide constraints.

**PRIME RESOURCE**
**Areas with resource generation potential and no Known or Possible Constraints.**

The Prime Resource Area for each resource—referred to on the maps as "Prime Wind" and "Prime Solar" respectively—refers to the area where renewable energy development may be most favorable due to the presence of good energy resources and a lack of environmental constraints.

Most of the region's high elevation forest land overlaps with the "Conservation Design" Possible Constraint area, thereby removing many otherwise "'Prime" sites from consideration. However, carefully planned wind energy development still may be feasible in many of the secondary resource areas.

**SECONDARY RESOURCE**
**Areas with good renewable energy resource generation potential and no Known Constraints, but at least one Possible Constraint.**

The Secondary Resource area—"Secondary Wind" and "Secondary Solar" on the maps—refers to the area where resource development is possible, but may be impeded by certain conditions (Possible Constraints). The areas that appear as Secondary Resource on the maps are not necessarily less optimal for resource development than Prime Resource areas, but at least one identified environmental constraint may complicate, or if severe enough, preclude development. The amount of Secondary Resource located in each region was used in the process of determining regional goals for renewable energy development.

**REGIONAL AND LOCAL CONSTRAINTS**

Regional constraints are physical or human conditions that have been identified by the region for consideration in developing renewable energy facilities that are not included in the statewide Known and Possible Constraint lists. These constraints will vary by region and may impact development in the same way as Known or Possible Constraints, depending on the nature of the resource and the specific site.

Each municipality in the region can also add locally-identified resources—constraints such as scenic viewsheds or unique natural areas, as well as preferred sites for energy generation, such as abandoned gravel pits—to their local energy plans.

However, regional and local constraints may not have the effect of prohibiting all types of renewable energy generation or of precluding development of sufficient renewable energy to meet state, regional, and local energy targets. To uphold the designation of locally-identified constraints, municipal plans must reference studies, planning documents, or other supporting data.

(Regional Energy Plan at 82)

Figure 4.11, BCRC Solar Resource Map (See Appendix D) maps three categories of potential solar resource areas. These include Prime Solar and Secondary Solar based on an analysis of statewide constraints, and a third category labeled, 'Secondary + Prime Ag.' Potential solar area, based on BCRC regional constraints. Although Figure 4.11 is relatively coarse in resolution, it appears that portions of the Project are within Prime and Secondary + Prime Ag potential resource categories, though some portions of the Project parcel are obscured. The Regional Energy Plan notes that the resource map is meant to inform regional and municipal energy planning efforts and is useful for conceptual planning or initial site identification, but site-specific investigation is necessary to adequate identify the presence of constraints.

The petitioner has also been in contact with the Bennington County Regional Commission ("BCRC). The BCRC noted that the Project appears to be consistent with the Regional Plan and supports regional energy goals, and that the proposed Project does not fall in a gateway viewshed as identified in the Regional Plan. The BCRC is also in support of the proposed temporary access road from US Route 7, and noted that the Project should retain and augment existing vegetation screening. (see Exhibit Petitioner SS-RW-9)

Lastly, Appendix D of the Regional Energy Plan provides 'Town Energy Planning & Renewable Guidelines'. Appendix D is provided as a resource for member municipalities to use for developing renewable energy facility siting guidelines within their own communities. The guidelines are laid out in 4 steps as follows:

STEP 1 Define the purpose of renewable generation facilities and set local goals.
STEP 2 Establish general facility siting guidelines.
STEP 3 Identify preferred areas and conditions for facility development.
STEP 4 Follow the Siting Review Process outlined in Section VI to identify areas that are not suitable for development, and establish any Local Constraints.

(Regional Energy Plan Appendix D – Town Energy Planning and Renewable Siting Guidelines at 161-163)

In review, the Project as proposed supports the Regional Plan goals for the development of well sited renewable energy generation. In particular, it would further the regions goals of developing 85 MW of solar generation by 2050, and the Project does not violate any land conservation measures within the Regional Plan. The Project complies with the Rutland Region Enhanced Energy Plan, including siting standards.

**TOWN PLAN**

The Town Plan provides more specific direction regarding development, conservation, and related public investments. The Town Plan provides goals and policies for the town and is the basis for zoning and subdivision regulations which guide all traditional land development.

Most specifically, in Chapter 2 – Goals, the Town Plan highlights forest lands as a high priority for conservation:

Natural Resources

- Conserve and manage forested land, particularly the Highest Priority Interior Forest Blacks that occur within the Town or extend beyond the Town boundary, to avoid fragmentation and to provide connectivity and habitat.

(Town Plan at 2)

In Chapter 4 – Physical Characteristics and Natural Resources,

> Map 4.1, Terrestrial and Aquatic Resources, illustrates several forest types. High Priority Interior Forest Blocks are areas of contiguous forest, unfragmented by roads, development or agricultural lands. They may also contain wetlands, waterbodies and other features. These overlap with Highest Priority Connectivity Blocks. Both areas are critical to wide ranging species such as black bear and those with small ranges such as amphibians that breed in wetlands and vernal pools. These forest blocks provide habitat for many forest nesting birds that migrate to and from the tropics. They also are likely to be most resilient to climate change. These areas have been identified by the Vermont Conservation Design program as those areas necessary for the long-term ecological function of a diversity of species and natural communities and which require large-scale conservation to remain viable.
>
> (Town Plan at 15)

Chapter 4 also includes goals and policies for rare species and natural communities:

> Goal 4.2 Maintain the long-term ecological integrity of natural communities and rare and unique species populations.
>
> Policy 4.2 The quantity and variety of biodiversity in the town should be protected.
>
> Actions
>
> - Referencing areas shown on Maps 4.1 and 4.2, the Town should ensure that new developments avoid disrupting rare or endangered species' habitats, deer wintering areas, and habitat for wide-ranging animals.
>
> (Town Plan at 9)

Maps 4.1, Terrestrial and Aquatic Systems and Map 4.2, Rare Species and Natural Communities has been provided in Appendix D. The Project site is not within any of these resources.

Chapter 2 notes the goal for Land Use is, "Work to achieve orderly development of the Shaftsbury landscape through a realistic planning process." (Town Plan at 2). The Project is within the Rural Residential 40 Land Use District. The Land Use Districts section, in Chapter 5, Land Use states that "(t)he purpose of the Rural Residential Districts is to ensure the preservation of natural resources, scenic qualities and agricultural land while accommodating relatively low-density residential development. These districts are planned to be predominantly residential in character, while permitting appropriate compact development but in all cases at densities to avoid the need for municipal water supplies or sewer systems." (Town Plan at 18) Furthermore, Chapter 12, Energy states that "(t)he Shaftsbury Planning Commission has determined that prime agricultural soils and the Center Shaftsbury Historic District should not be considered constraints to solar or wind energy development." (Town Plan at 37)

Shaftsbury does not have an adopted Enhanced Energy Plan. Chapter 12, Energy covers energy related topics, including renewable energy development. Chapter 12 begins by listing parts of the energy policy of the State of Vermont, including renewable energy goals of 25% by 2025, 40% by 2035, and 90% by 2050. Goal 12.1 is to be consistent with state goals. Policy 12.1.1 states, "the town of Shaftsbury will not impose screening or other restrictions on renewable energy development beyond those imposed for other types of building and industry. The town does not seek to regulate renewable energy beyond regulations imposed by the public service board. The town should not institute zoning or other ordinances that would limit renewable energy development." (Town Plan at 36) Chapter 12 continues to provide guidance on 'Suitable Areas for Wind, Solar, Biomass and Hydroelectric Resources'. This section references the siting guidelines developed as part of the Regional Energy Plan that are reviewed above.

Town Plan Map 12.1, Town of Shaftsbury Existing and Proposed Solar Sites, identifies to categories of potentials solar sites, No Constraint, and Possible Constraint. The Project appears to be within a mix of

areas either not categorized, categorized as No Constraint, or categorized as Possible Constraint, where " Constraints" relates back to Possible Constraints listed in the Regional Energy Plan.

Chapter 12, Energy concludes by noting that at the time the Town Plan was being drafted, with two proposed solar generation sites (a 150 kW and 500 kW), the total current solar generating capacity would be 0.96 MW. "The 2050 goal in the regional energy plan is for Shaftsbury to provide 10.5 megawatts of electricity from solar energy." (Town Plan at 39) Per the Vermont Community Energy Dashboard, the actual capacity of existing solar generation as of 2020 is 902 kW.

As proposed, the Project does not violate any land conservation measures outlined in the Town Plan. It meets the recommendations for siting of solar within the Town Plan Energy Chapter and helps to meet the town goals of developing 10.5 MW of solar electric generation.

**SUMMARY OF ORDERLY DEVELOPMENT ANALYSIS**

Based on our review of the Bennington County Regional Plan and Shaftsbury Town Plan, the Shaftsbury Solar Project WOULD NOT unduly interfere with the orderly development of the region. With respect to the Bennington County Energy Plan, the Project gives substantial deference to the Regional Plan's requirements and there are no land conversation measures applicable to the Project in the Regional Plan.